

# **National Web-Based Teleconference on Health IT: Putting the Patient Back in Patient-Centered Care**

**March 30, 2011**

**Moderator:**

**Angela Lavanderos**

**Agency for Healthcare Research and Quality**

**Presenters:**

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# Managing Health: EMPOWERing Patients

*Paul C. Tang, MD*

*Palo Alto Medical Foundation  
Stanford University School of Medicine*

I do not have any relevant financial relationships with any commercial interests to disclose.

# Managing Health: EMPOWERing Patients

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# Agenda

- Traditional disease management
- Personalized health care
- EMPOWER-D study



# Traditional Disease Management

*“Protocol Driven”*

Disease Condition



Treatment



# Personalizing Health

*Role for a Personalized Health Record*



# Personalize your health records

What do you want your doctor to know about you?

Missed  
opportunity:  
teachable  
moment. A  
chance to cure.

1 If I do all  
the right  
things could  
I reverse the  
diagnosis?

## Personalized health goal

3

I would like  
to be healthy  
enough to give  
my daughter  
a kidney -  
she is in kidney  
failure

Health goal

5 I want to  
live to be  
90.

# Personalized Health Care Program (PHCP)

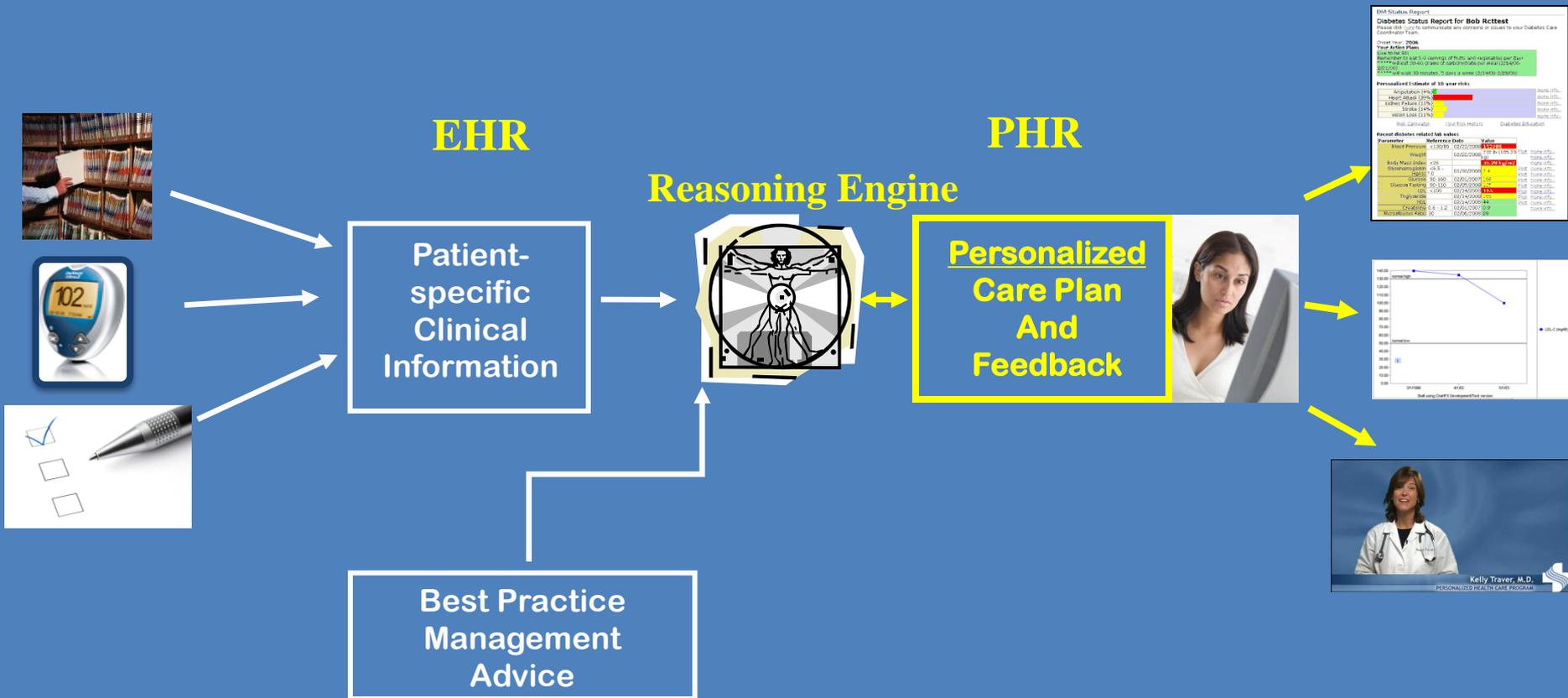
## *A Personalized Care Management Service*

- Provide **customized online** care management support of patients with chronic health conditions
- Partnership between patients and their **multidisciplinary health care team**



# PHCP

## Conceptual Architecture



# PAMFOnline: Diabetes Status Report

## *Diabetes Dashboard for Patients*

### DM Status Report

#### Diabetes Status Report for Bob Rcttest

Please click [here](#) to communicate any concerns or issues to your Diabetes Care Coordinator Team.

Onset Year: **2006**

#### Your Action Plans

Live to be 90!  
Remember to eat 5-9 servings of fruits and vegetables per day!  
\*\*\*\*\*will eat 30-60 grams of carbohydrate per meal (2/14/08-2/21/08)  
\*\*\*\*\*will walk 30 minutes, 5 days a week (2/14/08-2/28/08)

#### Personalized Estimate of 10-year risks

Amputation (4%)		<a href="#">more info..</a>
Heart Attack (39%)		<a href="#">more info..</a>
Kidney Failure (11%)		<a href="#">more info..</a>
Stroke (14%)		<a href="#">more info..</a>
Vision Loss (11%)		<a href="#">more info..</a>

[Risk Calculator](#)

[Your Risk History](#)

[Diabetes Education](#)

#### Recent diabetes related lab values

Parameter	Reference	Date	Value	
Blood Pressure	<130/80	02/22/2008	<b>152/88</b>	
Weight		02/22/2008	232 lb (105.23 kg)	<a href="#">Plot</a> <a href="#">more info..</a>
Body Mass Index	<25		<b>35.28 kg/m2</b>	<a href="#">more info..</a>
Glycohemoglobin HgA1c	<6.5 - 7.0	01/30/2008	7.4	<a href="#">Plot</a> <a href="#">more info..</a>
Glucose	90-160	02/01/2007	198	<a href="#">Plot</a> <a href="#">more info..</a>
Glucose Fasting	90-110	02/05/2008	125	<a href="#">Plot</a> <a href="#">more info..</a>
LDL	<100	02/14/2008	<b>165</b>	<a href="#">Plot</a> <a href="#">more info..</a>
Triglyceride		02/14/2008	155	<a href="#">Plot</a> <a href="#">more info..</a>
HDL		02/14/2008	44	<a href="#">Plot</a> <a href="#">more info..</a>
Creatinine	0.6 - 1.2	02/01/2007	0.9	<a href="#">more info..</a>
Microalbumin Ratio	30	02/06/2008	28	

#### Current medications for management of your diabetes

It is important that you take the medications as directed. Do not skip doses. Good medication taking habit will keep your disease condition under control.

Medication	Directions	
GLIPIZIDE 10 MG PO TABS	Take 1 by mouth each morning 30 minutes before breakfast.	<a href="#">more info..</a>
LIPITOR 20 MG PO TABS	one tablet daily	<a href="#">more info..</a>
GLUCOPHAGE 850 MG PO TABS	1 TABLET TWICE DAILY WITH FOOD	<a href="#">more info..</a>
LISINOPRIL 20 MG PO TABS	Take 1 tablet daily (may be taken with or without food).	
ASPIRIN EC 81 MG PO TBEC	Take 1 by mouth each day.	

#### Health Maintenance Schedules:

Topic	Last Done	Next Due
DIABETIC EYE EXAM	Never	Now
DIABETIC FOOT EXAM	Never	Now
INFLUENZA VACCINE	11/26/2007-Done	10/01/2008
GLYCOHEMOGLOBIN	01/30/2008	04/30/2008
LIPID SCREENING	02/14/2008	02/14/2009
MICROALBUMIN	02/06/2008	02/06/2009

#### Office Visits

Specialty	Last Visit	Next Scheduled Appt
PCP		
Endocrinology		
Cardiology		
Ophthalmology		
Podiatry		

Please use the following recommendations to make sure that your diabetes care is up-to-date.

- Check at every Office Visit
  - Blood Pressure
  - Weight
- Check at least once a Year:
  - Cholesterol
  - Microalbumin
  - Foot Exam
  - Eye Exam
  - Flu Shot
  - Diabetes Education & Nutrition counseling

# Providing Tools for Timely Feedback to Patients

*Helping to 'Connect the Dots'*



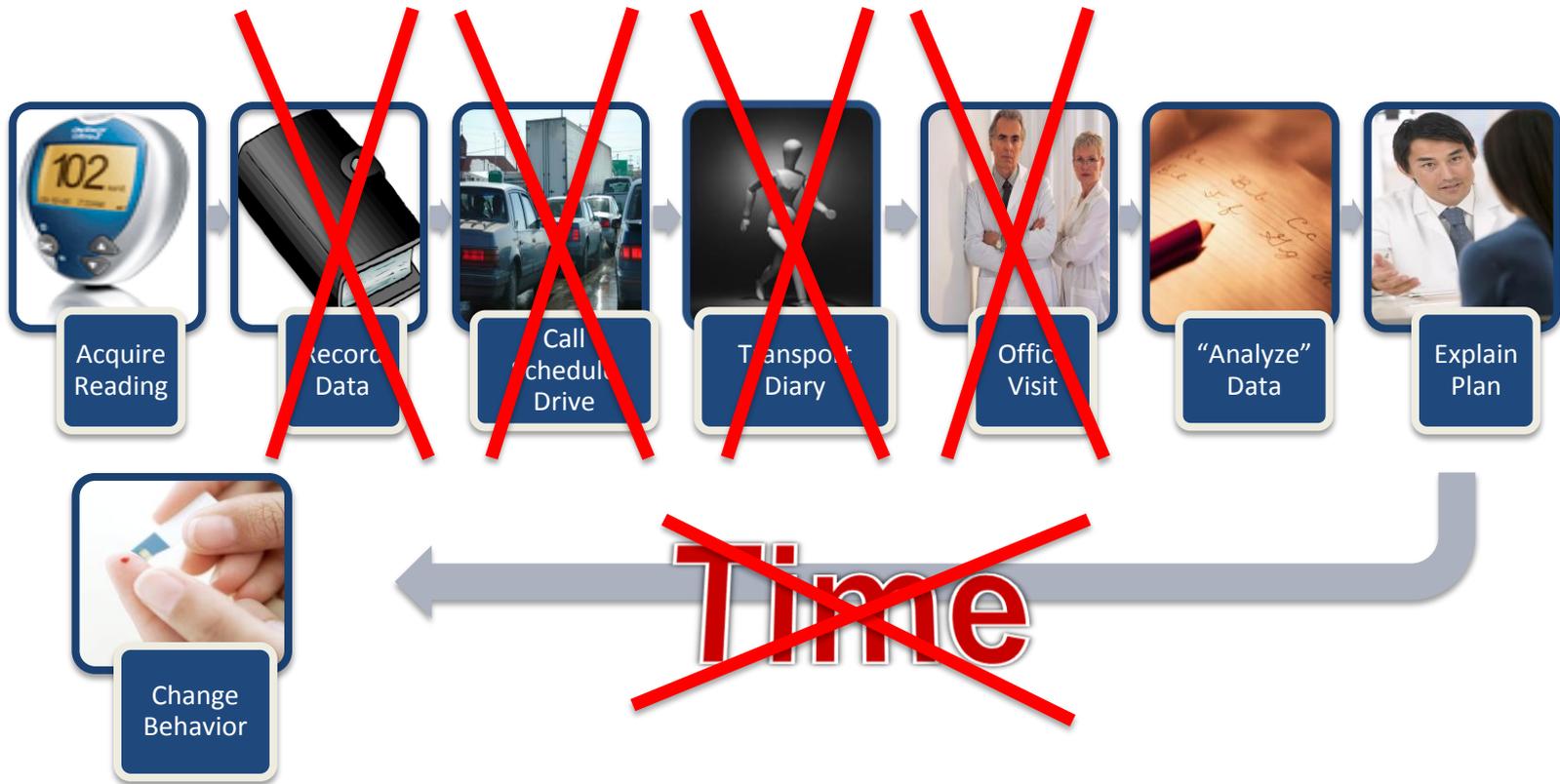
# Managing “Sugar”

## *Traditional Process*



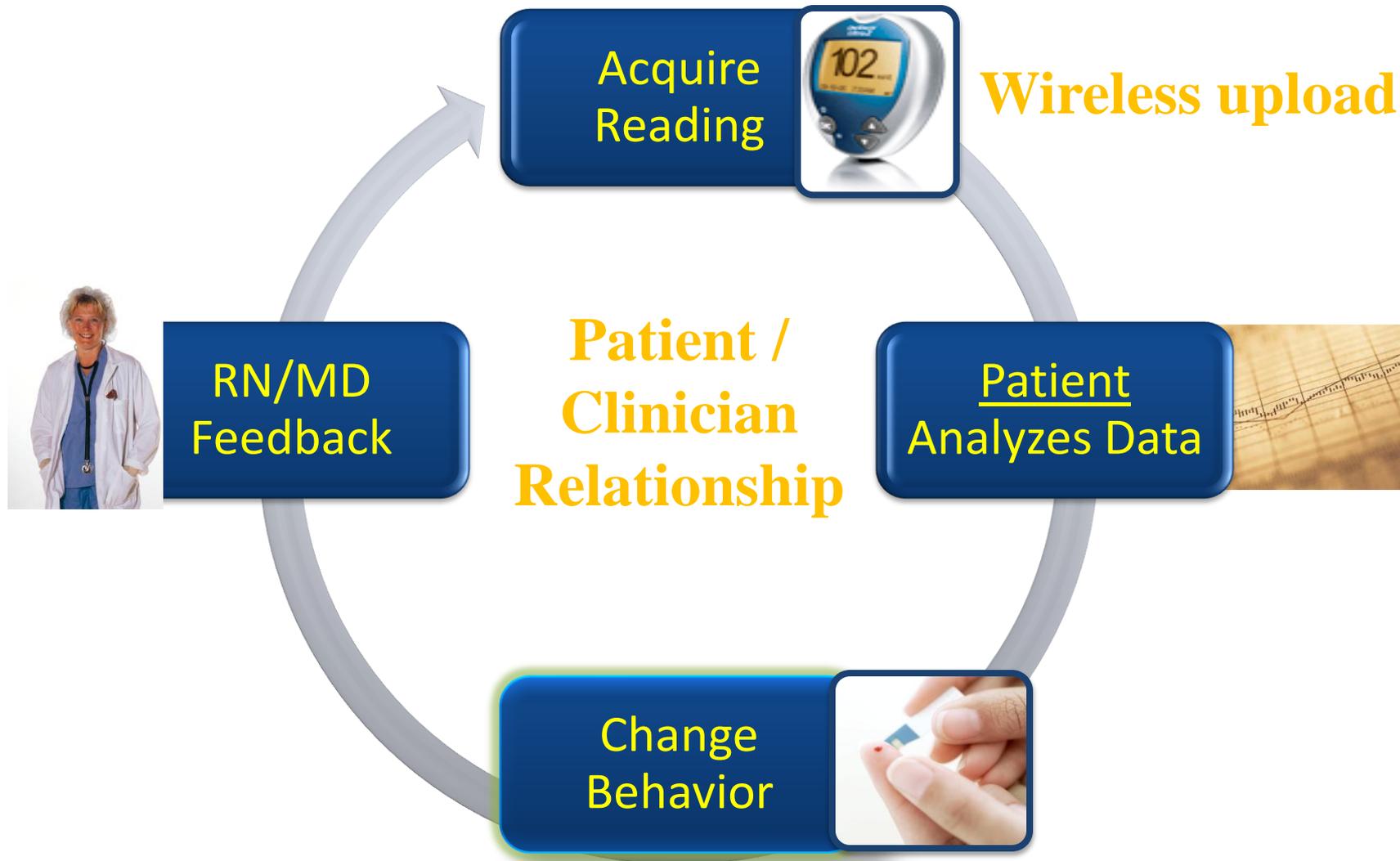
# Online Disease Management

## Diabetes



# Untethering Glucometer

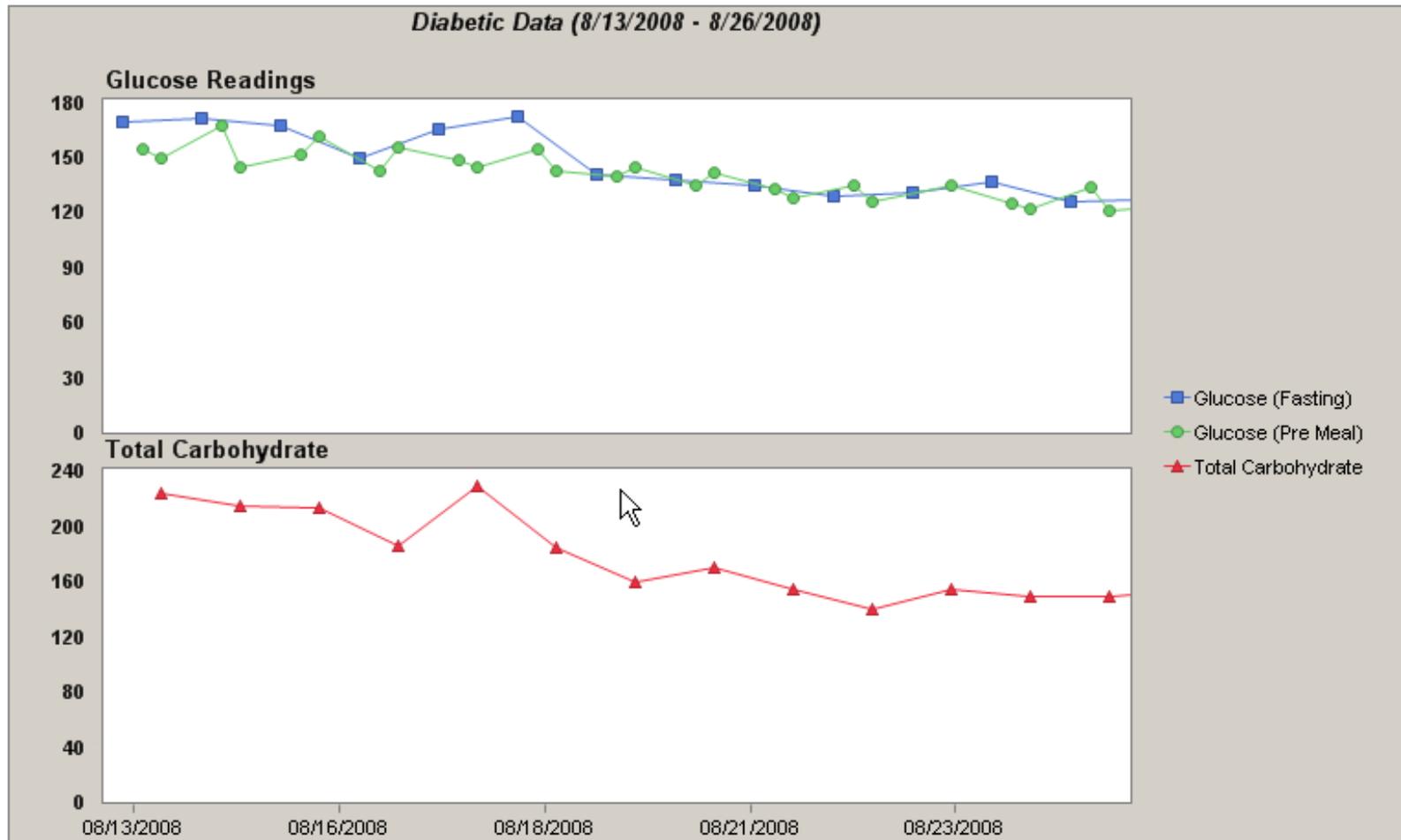
## *Unleashing Patient Control*



# Providing Feedback

Values from  to

View Last [1 week](#) [1 month](#) [3 months](#) [6 months](#)



# Feedback from Beta Group

*Mar 20, 2008*

- Doing it for us:
  - “Being in the [online disease management] program means people are interested in you.”
  - “Kelly was watching” “Knowing information will get to Kelly”
- Learning from data:
  - “Eating made a big difference in readings...”
  - “...also found out that what I eat affects the readings.”
  - “It makes denial more difficult.”
- Doing it for themselves:
  - “If I’m going to eat something, I think about what my reading will be, so I don’t eat it.”
  - “I’ve incorporated the tools into my daily life.”



# EMPOWER-D

*Engaging and Motivating Patients Online With Enhanced  
Resources - Diabetes*

*A randomized controlled clinical trial of a  
PHCP for patients with Diabetes*



# EMPOWER-D

## *A Randomized Controlled Clinical Trial*

- Funded by the Agency for Healthcare Research and Quality
- 400 diabetic patients (200 intervention, 200 controls)
- Outcome measures:
  - **HbA1c**, BP, lipids, wt, microalbumin
  - Self-management behavior
  - Patient and provider satisfaction
  - Utilization



# Summary

## *Connecting for Better Health*

- *Personalized* health care key to sustained patient engagement
- Use PHR to create a continuous linkage with their professional health care team
- Put patients on the health care team
- EHRs *and* PHRs are essential technologies for bringing patients into the workforce



# Personal Health Records and Elder Medication Use Quality

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*Department of Epidemiology*

*The University of Iowa*

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# What is a Personal Health Record?

- **Personal Health Records (“PHRs”)** are *electronic records of individually identifiable health information on an individual that can be drawn from multiple sources and that is managed, shared, and controlled by or for the individual.*
- PHRs vary considerably in features, cost, and functionality.



**Personal Health Records Use Rising**  
 Despite privacy and other concerns, 7% of Americans have online PHRs  
 years ago.  
 By Marianne Kolbasuk McGee InformationWeek  
 April 13, 2010 11:15 AM  
 While consumer use of online personal health records is growing, on despite privacy and other concerns, according to a survey by the Healthcare Foundation.  
**Electronic Gizmos and Even Paper: Personal Health Records Benefit Everyone**  
 Personal health records are catching on Tuesday by the California

**MARKLE FOUNDATION**  
 CONNECTING FOR HEALTH  
 A Public-Private Collaborative  
**AMERICANS WANT BENEFITS OF PERSONAL HEALTH RECORDS**  
 Connecting for Health was convened by the Markle Foundation to address  
 Over 70% believe PHR would improve quality of health care

**White Papers : Benefits of a Personal Health Record**  
 Benefits and Features of Personal Health Records  
 As a Catalyst for Health, Safety and Wellness  
 Al Davies, M.D.  
 Valerie Purcell, RN, MBA

**myMediConnect**  
 Personal Health Records  
 Formerly PassportMD  
 a MediConnect Global Company

**myPHR**

**My healthvet**

**UNIVERSITY of IOWA HOSPITALS & CLINICS**

**Aetna's Personal Health Record**

MyChart Login

**TELUS health space™**

**iHealth Record**

**MAYO CLINIC Health Manager**  
 Powered by Microsoft® HealthVault™

**WebMD health manager**

**LifeSensor®**

**Google health beta**

**myOptumHealth.com**  
 Optimizing Health and Well-Being™

**MyMedicare.gov**

**Microsoft HealthVault™**

**mydoctor.ca Health Portal**

**dossia**

**Sunnybrook MyChart™**

**Cleveland Clinic MyChart®**  
 Your Interactive Health Record

**MyPHRSC**  
 My Personal Health Record, South Carolina

# Context

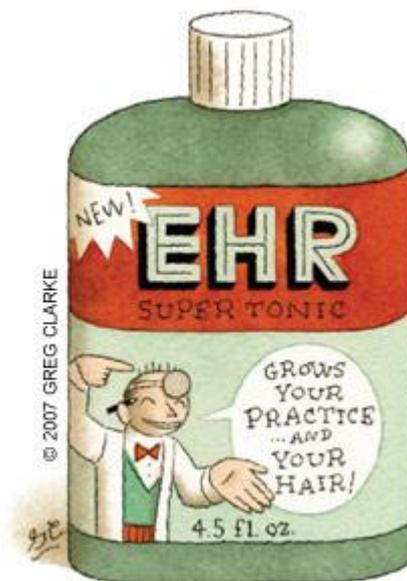
- Increasing older adult population
- Heavy use of healthcare system; multiple prescriptions, multiple providers
- Discrepancies between medication lists – health system records vs. patient self-report
- Up to 40% don't take medications as prescribed<sup>1</sup>
- 14-23% prescribed medications incorrectly<sup>2-4</sup>
- PHR use is on the rise nationally:<sup>5</sup>
  - 2008 3%
  - 2010 10%



# PHRs and older adults

PHRs *may*...

- Facilitate greater control, involvement over health
- Increase communication and support medication reconciliation
- Reduce mistakes by patients and providers



# PHRs and older adults

But...<sup>6</sup>

- Lack of computer literacy, access
- Cognitive, perceptual, motor declines
- Interface “goodness-of-fit”
- Data entry
- Lack of perceived benefit
- Limited feedback loops
  - E.g., physician involvement



**TECHNOLOGY**

Everyone Is Here To Save You, But Unfortunately  
... You're Not In The Computer

# Study Goals

1. Study usability of commercial PHRs among older adults
2. Participatory design of a PHR specifically for older adults
3. Test whether engagement in keeping a personal health record is associated with increased self-efficacy for medication therapy management, improved communication with providers, and improved medication quality



# PHR usability

- Reviewed 58 PHRs listed in myphr.org (2008)
  - 54 were operational when we reviewed them
- Most geared towards young families
- Few provided easy to access online demonstrations
- We only found 12 out of 58 could be potentially used in our study
  - poorly designed forms
  - difficult navigation
  - complex user interfaces

**Conclusion: The commercially available PHR we selected was not conducive to medication management activities.**



# PHR participatory design

- AHRQ health IT report<sup>6</sup>
- Participatory design sessions with older adults in retirement community
  - 12 sessions over 3 weeks
  - Expressed interest in entering and keeping track of health information
- Focus groups with other older adults
- Human-computer interaction lab testing

*Evidence Report/Technology Assessment*  
Number 175

**Barriers and Drivers of Health Information Technology Use for the Elderly, Chronically Ill, and Underserved**

Prepared for:  
Agency for Healthcare Research and Quality  
U.S. Department of Health and Human Services  
540 Gaither Road  
Rockville, MD 20850  
[www.ahrq.gov](http://www.ahrq.gov)

Contract No. 290-02-0024

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William Hersh, M.D.

AHRQ Publication No. 09-E004  
November 2008



# The result? → **iowa**PHR Personal Health Record

- Simple user interface and navigation
  - All patient-entered info; an “untethered” PHR
- Designed for lower literacy patient population
- Although the purpose of the grant is to examine whether the study PHR (“**iowaPHR**”) improves medication use, IowaPHR includes expanded functionality:
  - tracking health-related information (e.g. blood pressure, doctor visits)
  - recording health conditions and allergies
  - printing reports for sharing with healthcare providers
  - medication-specific “warnings”<sup>7</sup>

# Iowa PHR login screen ([www.iowaphr.org](http://www.iowaphr.org))

**iowaPHR**  
Personal Health Record

[About IowaPHR](#) [Contact us](#)

March 15, 2011

Username:	<input type="text"/>
Password:	<input type="password"/>
<input type="button" value="Login"/>	<input type="button" value="Clear"/>

[Forgot password or username?](#)

Home

Medication Lists

Print Reports

Tracking

Allergies

Health Conditions

About Me

## Welcome Back

### Did you know:

#### **A comprehensive medication review should be done at least once each year.**

A person's need for medications changes over time. A yearly review of your medication list by a healthcare provider can stop unneeded medications and find out if new medications are needed. It can make sure the doses you take and the times you take them are still right for you.

### What can you do?

- Use IowaPHR to print your current medication list and ask your pharmacist or doctor to review your medications.
- Ask your pharmacist or doctor to review your list at least once per year.
- Ask if there are medications that can be removed or changed.
- Ask if some medications should be added.

Please click play to view the tutorial video below.

#### **With the IowaPHR you can:**

- Keep an up-to-date list of all your [medications](#).
  - Record what each medication is supposed to do.
  - Get important warnings about the medications you are taking.
- [Print reports](#) to share with your healthcare providers, including:
  - A list of your current medications
  - Warnings for medications you are taking
  - A wallet-sized card
- Track your [health](#), [allergies](#) and [health conditions](#).



# Iowa PHR medication screen

[About IowaPHR](#) [About this study](#) [Feedback](#) [Contact us](#) [Sign Out](#)



March 15, 2011

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Health Conditions

About Me

Current Medication List

Previous Medication List

[view or print your current medication list](#)

## Instructions

As you begin to type a medication name, our system will recommend product names to help you with spelling. When you see the one you want, click on it to enter it in the field. It is possible that not every product is in our system. In that case, just keep typing, being careful to spell it as accurately as possible. You may see a safety warning about a medicine. Safety warnings are based on expert recommendations, however please note that using IowaPHR should not in any way replace advice given by your doctor, pharmacist, or any other medical professional. Also, different medications sometimes have very similar names, and a warning could be generated in error if a typing mistake is made.

[\[More Information\]](#)

## MY CURRENT MEDICATION LIST

Name of **Medication** or product  
Example: Tylenol

What **Strength** do you take?  
Example: 325mg

How do you take it?  
Example: 2 Tablets Every 8 Hours As Needed

Why do you take it?  
Example: Arthritis

adv

Add Medication

advair...  
advance...  
advanced am/pm  
advanced formula di-gel  
advate rahf-pfm  
advicor  
advil...  
advil cold and sinus liqui-gel  
advil multi-symptom cold

One a day with a full glass of water

high blood pressure

[Edit](#) [Delete](#)

Move to Previous Medication List

tablet every 6 hours

sprained ankle

[Edit](#) [Delete](#)

Move to Previous Medication List

# Iowa PHR medication screen

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[view or print your current medication list](#)

## Instructions

As you begin to type a medication name, our system will recommend product names to help you with spelling. When you see the one you want, click on it to enter it in the field. It is possible that not every product is in our system. In that case, just keep typing, being careful to spell it as accurately as possible. You may see a safety warning about a medicine. Safety warnings are based on expert recommendations, however please note that using IowaPHR should not in any way replace advice given by your doctor, pharmacist, or any other medical professional. Also, different medications sometimes have very similar names, and a warning could be generated in error if a typing mistake is made.

[\[More Information\]](#)

## MY CURRENT MEDICATION LIST

Name of **Medication** or product  
Example: Tylenol

**What Strength** do you take?  
Example: 325mg

**How** do you take it?  
Example: 2 Tablets Every 8 Hours As Needed

**Why** do you take it?  
Example: Arthritis

Add Medication

Your changes have been saved

See medication warning below

Page 1

warfarin	2 mg	once a day	had a heart attack	<a href="#">Edit</a> <a href="#">Delete</a>
<a href="#">Reduce your risk of serious bleeding side effects</a>				<a href="#">Move to Previous Medication List</a>
enalapril	5 mg	One a day with a full glass of water	high blood pressure	<a href="#">Edit</a> <a href="#">Delete</a>
<a href="#">Reduce your risk of kidney and heart side effects</a>				<a href="#">Move to Previous Medication List</a>
Advil	200 mg	1 tablet every 6 hours	sprained ankle	<a href="#">Edit</a> <a href="#">Delete</a>
<a href="#">Do you have risk factors for serious stomach bleeding?</a>				<a href="#">Move to Previous Medication List</a>

# Medication warnings on home page

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## Welcome Back

### Latest safety updates about your medications:

▶ **warfarin - Reduce your risk of serious bleeding side effects**

▼ **enalapril - Reduce your risk of kidney and heart side effects**

**This product contains enalapril. It can cause low kidney function and high potassium. High potassium can cause heart problems.**

- Talk to your doctor about getting a blood test to detect low kidney function and high potassium.

[More about getting a blood test](#)

▶ **Advil - Do you have risk factors for serious stomach bleeding?**

Please note that using IowaPHR should not in any way replace advice given by a doctor, pharmacist, or any other medical professional. Please talk to your doctor or pharmacist before starting, stopping, or changing how you take any medication. Different medications sometimes have very similar names, and a warning could be generated in error. To verify that your medication contains the drug listed in a warning, check the label or ask your pharmacist.

# IowaPHR tracking health information

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**iowaPHR**  
Personal Health Record

March 15, 2011

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Blood Pressure

Blood Sugar

Exercise

Cholesterol

Health Care Visits

Weight

Personal

## My Blood Pressure

[print your blood pressure records](#)

Your changes have been saved.

Date of test

03/15/2011

Calendar

Time of test

:

am

Systolic over Diastolic

over

Pulse

Add Record

Feb 2, 2011

10:30 AM

145 over 87

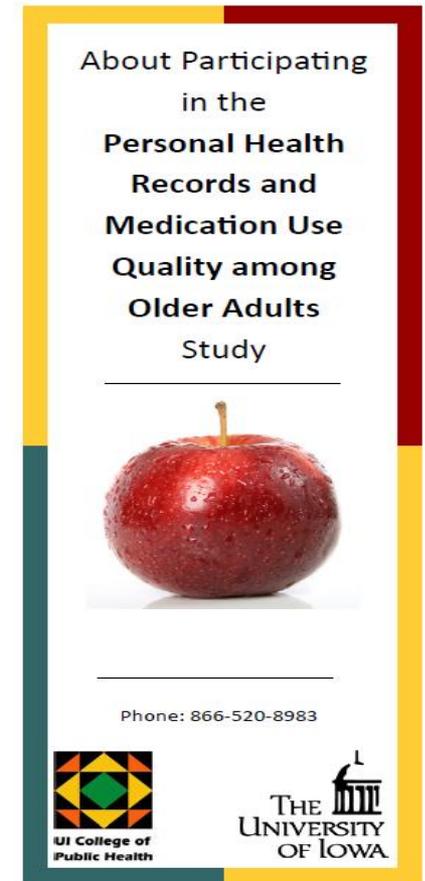
66

[Edit](#) [Delete](#)

Page 1

# Trial recruitment (1)

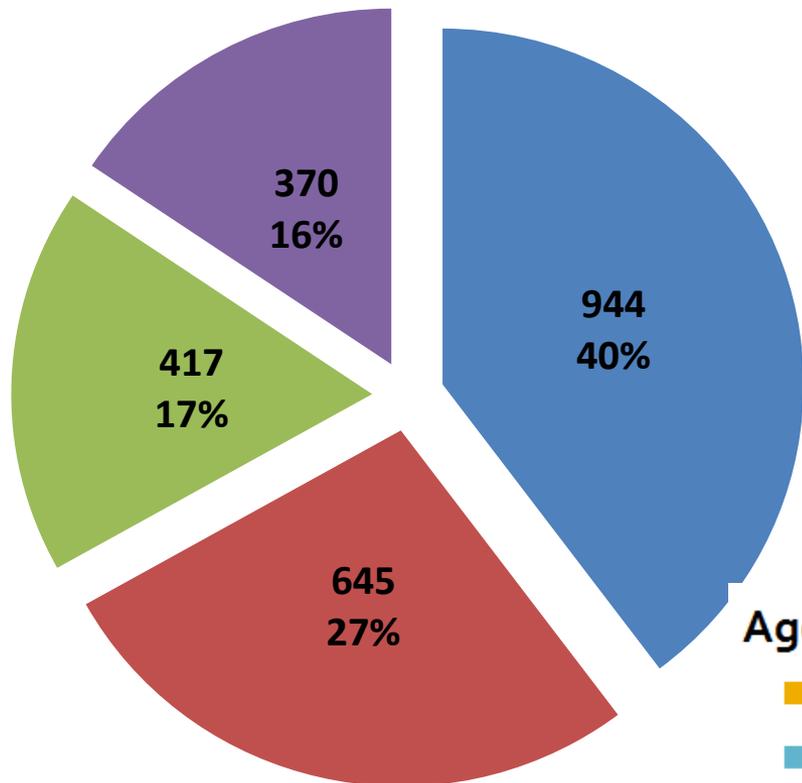
- Simple random sample of registered voters in Iowa age 65+ (n=15,000)
- Mailed screening questionnaire to identify current computer users:
  - “In the past month, have you used a computer to visit web sites, or to send or receive email?”
- Sent baseline questionnaire and invitation to trial eligibles
- \$10 payment for completing baseline questionnaire



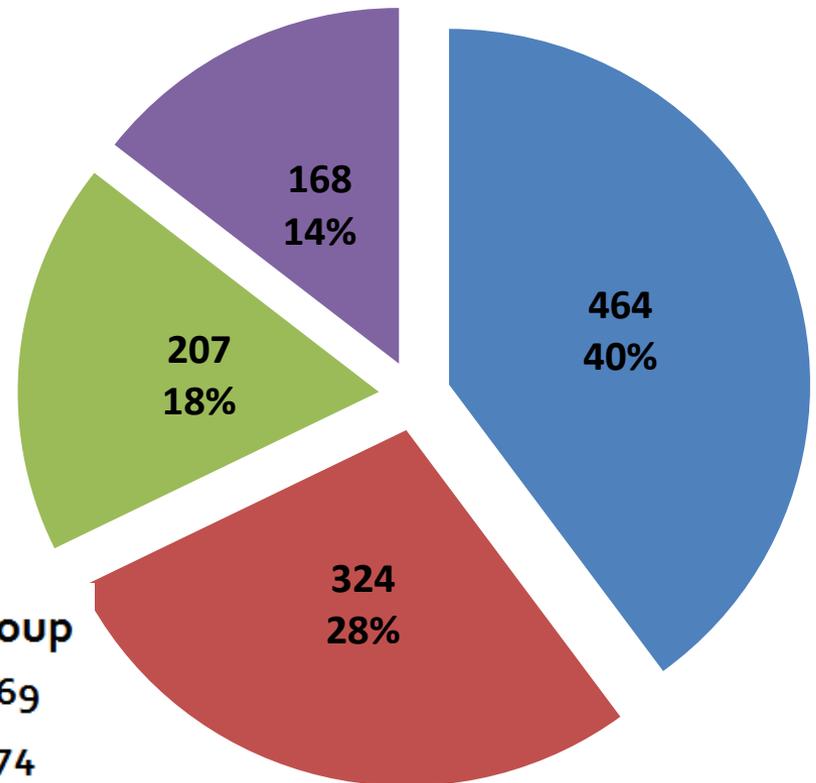
# Trial Recruitment (2)

48.9% of eligible persons were enrolled in trial

Eligible for trial (n=2376)



Enrolled in trial (n=1163)



Age group

65-69

70-74

75-79

80+

# Study groups and measures

- Trial enrollees randomized (3:1):
  - “PHR group” or normal care/control group
    - **PHR group: 873**
    - **Control: 290**
    - Total 1163
- Measures
  - Baseline and 6 mo follow-up medication inventory, medication management behaviors, SF-12 v2, demographics
    - ACOVE-3 measures of medication use quality<sup>7</sup>
  - Detailed log-tracking
  - Attitudes towards, experience with PHR use



# “PHR group” user invitations

- Letter with username and password mailed to prospective user
- Quick start guide:

## Other information about using IowaPHR

- The information you enter will be stored on a secure computer at the University of Iowa.
- You will have access to IowaPHR for a period of one year. We will contact you before the end of the one-year study period.

## Other information about this study

- This study is designed to test how the use of an online Personal Health Record (PHR) may help older adults to manage their medications more wisely.
- We encourage you to talk about your participation in this study with your family and friends.
- This is a voluntary research study, and you can stop participating at any time.
- This study is funded by the Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services.

## Questions about this study?

Please call us toll-free at:  
**866-520-8983**

**Please note:** Travel to the University of Iowa is **NOT** required for any part of this study. The entire study may be done from home.

## iowaPHR

### Quick Start Guide to Using Iowa Personal Health Record



Study Website:  
[www.iowaphr.org](http://www.iowaphr.org)



## What is a Personal Health Record (PHR)?

A Personal Health Record (PHR) is a computer program that allows you to enter and store your health and medication information.

You are being invited to use IowaPHR, which is a Personal Health Record (PHR) developed with older adults by researchers at the University of Iowa.

If you decide to use IowaPHR you will be able to do the following from a computer that is connected to the internet:

- Keep an up-to-date list of all your medications
- Print records of your medications, including a wallet-size medication list
- Keep a list of your health conditions
- Track health information that is important to you, such as cholesterol levels, blood sugar, doctor visits, or how often you exercise.

By using IowaPHR, you will also be able to get important messages about your medications. These messages were developed from the findings of a national expert panel about medications issues that are unique to older adults.

## How do I use IowaPHR?

- 1 Go to a computer that is connected to the internet and visit [www.iowaphr.org](http://www.iowaphr.org)



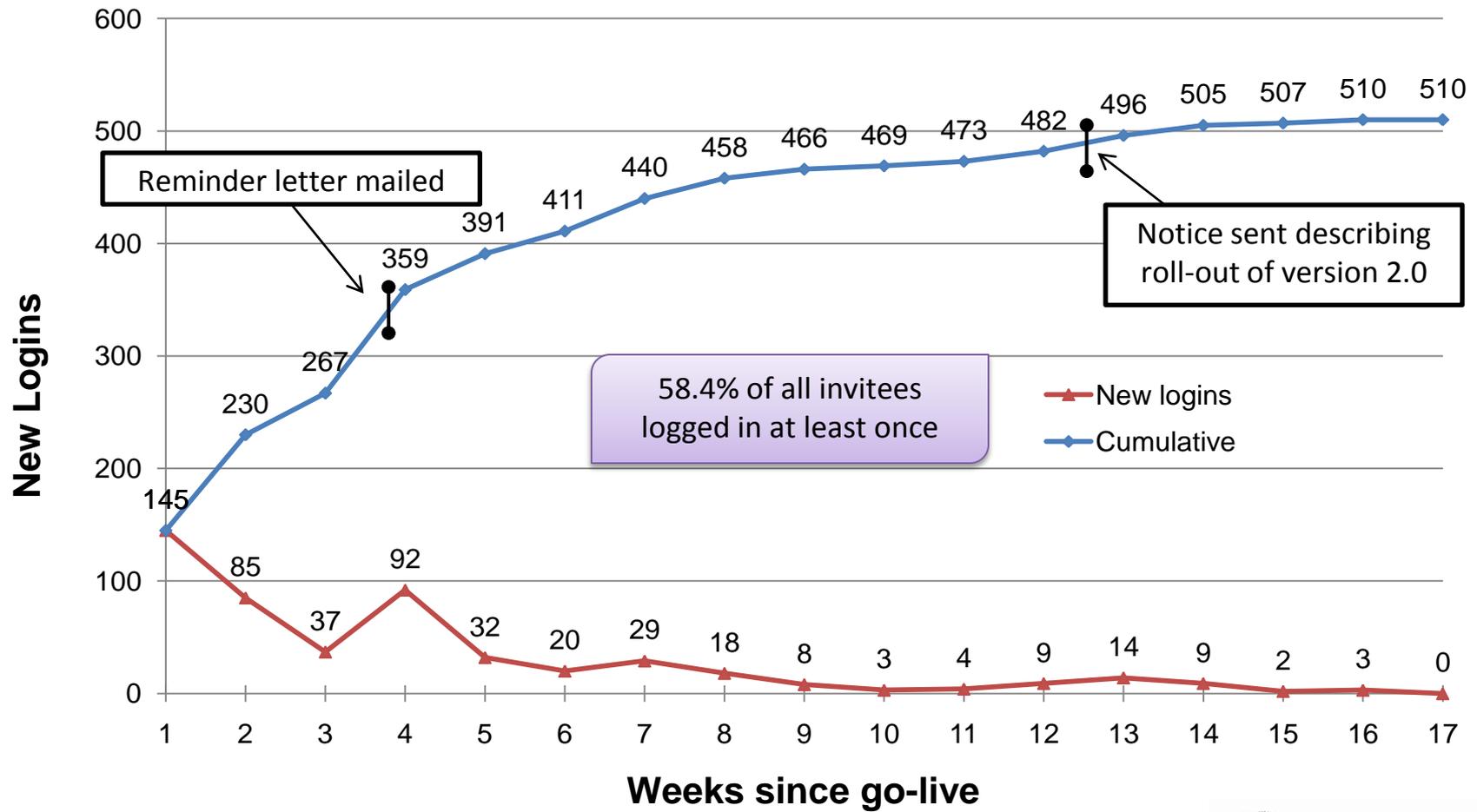
- 2 Type in your username and password that was provided in the enclosed letter, and click "Login."



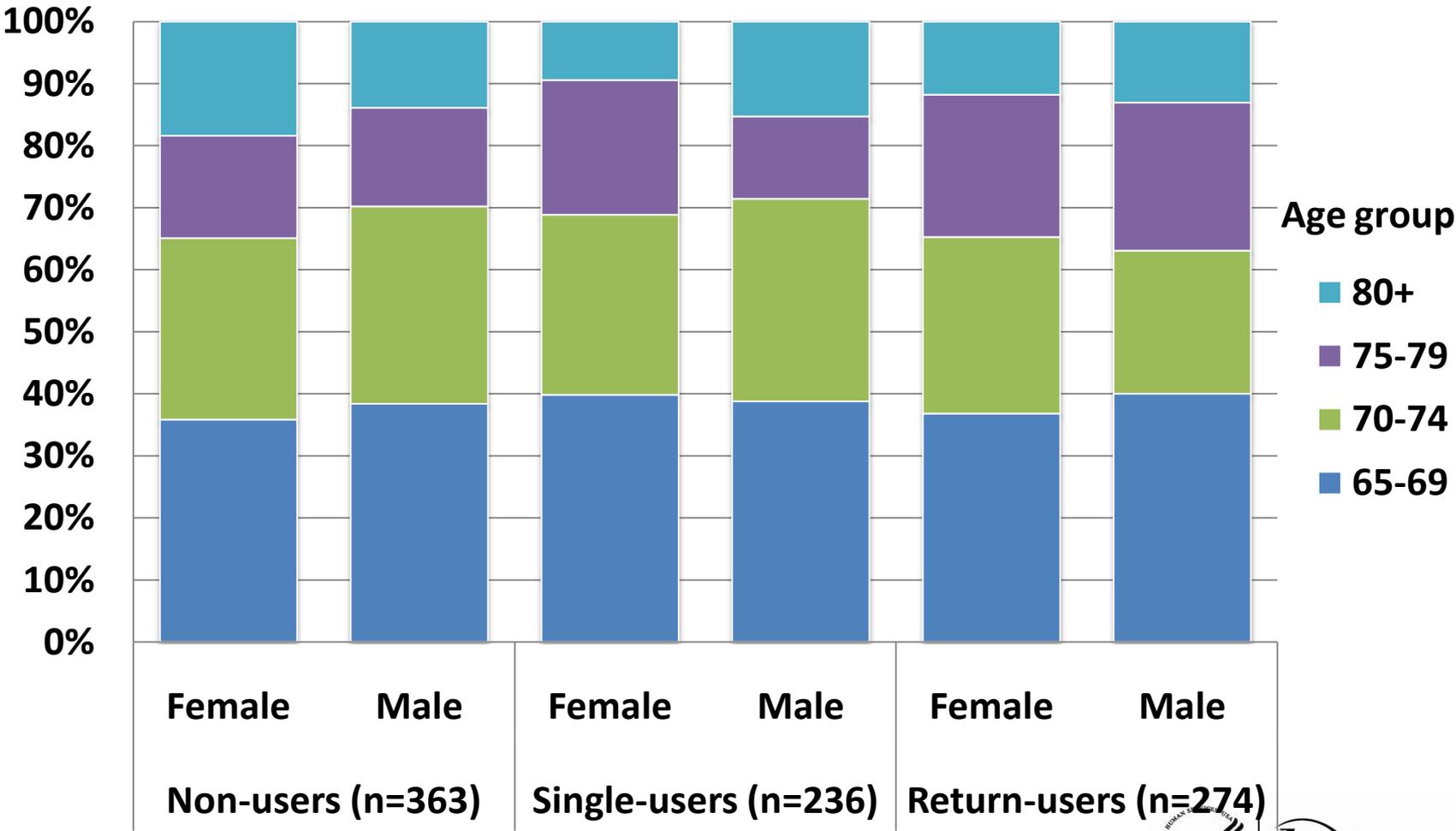
- 3 Now you're ready to use IowaPHR!

You can enter as much or as little information in IowaPHR as you want. Also, you can update your IowaPHR account as often as you want.

# Weekly and cumulative new logins



# Non-, single-\* and return-users (n=873)



# Average number of people logging in, by age and sex

	Total People	Total Logins*	Mean Person Logins*	Mean Daily Logins*
All	510	1303	2.6	11.0
<b>Age group</b>				
65-69	198	491	2.5	4.2
70-74	143	391	2.7	3.3
75-79	107	289	2.7	2.5
80+	62	132	2.1	1.1
<b>Sex</b>				
Female	282	541	1.9	4.6
Male	228	762	3.3	6.5

\*Includes max of one login per person per day; results reported for 17 weeks of PHR use

# Average interval (in days) between logins\*, among return users (n=274)

	Mean # of days (SD)
<b>Age group</b>	
65-69	21.0 (29.2)
70-74	16.0 (24.4)
75-79	19.6 (25.5)
80+	29.8 (30.6)
<b>Sex</b>	
Female	31.2 (30.0)
Male	14.4 (24.1)

\*Includes max of one login per person per day; results reported for 17 weeks of PHR use



# Iowa PHR user-entered current medications

- 2310 current medications entered (among 325 users)
  - Mean (SD) 7.1 (4.4)
  - Mode 4.0
- **76.5%** (n=1767) of current medications entered match reference list

Number of current medications	
Quantile	Estimate
25%	4
50%	6
75%	10
90%	13
100%	28

# Medication warnings

Warning	Count	Percent
NSAIDs	209	45.7
ACE Inhibitors	93	20.4
Acetaminophen	46	10.0
Anticholinergics	32	7.0
Warfarin	24	5.3
Loop diuretics	22	4.8
Benzodiazepines	16	3.5
Iron	8	1.8
Skeletal muscle relaxants	5	1.1
Barbiturates	1	0.2
Ketorolac	1	0.2
Total warnings	457	100.0

$$\frac{\text{Total medications with at least one warning}}{\text{Total medications entered}} = \frac{448}{2310} = \text{19.4\% of entered meds have } \geq 1 \text{ warning}$$

# Iowa PHR user-entered health conditions

- 490 conditions entered (among 161 users)
  - Mean (SD) 3.0 (2.3)
  - Mode 1.0
- **38.8%** (n=190) of entered conditions match reference list

Number of conditions	
Quantile	Estimate
25%	1
50%	2
75%	4
90%	6
100%	15

# Main feature visits, among ever-users (n=510)

PHR function/tab	Number of users		Total visits
	n	(%)	
Tutorial Video	386	(75.7)	627
Current Medication List	374	(73.3)	1110
Previous Medication List	109	(21.4)	219
Print Reports	207	(40.6)	420
Tracking	273	(53.5)	1014
Blood Pressure	120	(23.5)	343
Blood Sugar	77	(15.1)	197
Exercise	104	(20.4)	423
Cholesterol	76	(14.9)	131
Health Care Visits	104	(20.4)	250
Weight	111	(21.8)	273
Personal	88	(17.3)	192
Allergies	255	(50.0)	433
Health Conditions	309	(60.6)	2133
About Me	324	(63.5)	646
Emergency Contact	206	(40.4)	262
Warning from Med List Tab	67	(13.1)	117
Warning from Home Page Tab	42	(8.2)	94



# Reports printed by users, among ever-users (n=510)

Report	Number of users		Total visits
	n	(%)	
Current Medication list	219	(42.9)	574
Previous Medication List	36	(7.1)	52
Medication Warnings	24	(4.7)	34
Wallet Sized Card	208	(40.8)	453
Blood Pressure	21	(4.1)	36
Blood Sugar	3	(0.6)	8
Exercise	5	(1.0)	19
Cholesterol	7	(1.4)	7
Health Care Visits	10	(2.0)	19



# Conclusion

- Older adults will use an internet-based PHR
- Many will continue to use it
- Preliminary evidence suggests good quality medication data can be collected
- Possible source for collecting diverse patient-reported outcomes
- Stay tuned to see if this has an effect on:
  - Keeping an up-to-date medication list
  - Sharing the list during healthcare visits
  - Discussing medications during healthcare visits
  - Quality indicators



# Study Team

## Faculty and Staff

- Betsy Chrischilles (PI)
- Jeanette Daly
- Bill Doucette
- David Eichmann
- Karen Farris
- Brian Gryzlak
- Juan Pablo Hourcade
- Elena Letuchy
- Barcey Levy
- Ryan Lorentzen
- Mike Mueller
- Nick Rudzianski
- Kara Wright

## Students

- Dana Bakhit
- Don Dunbar
- Amber Goedken
- Blake Hanson
- Kate Jett
- Zainab Khan
- Sandeep Kumar
- Cassie Spracklen



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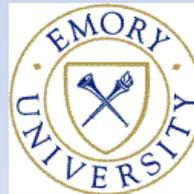


Thank you!



# An Electronic Personal Health Record for Mental Health Consumers

*Silke von Esenwein, PhD*



I do not have any relevant financial relationships with any commercial interests to disclose.

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# PHRs in Community Mental Health

- Persons with SMI commonly have multiple comorbid conditions
- Care is typically scattered across multiple providers
- Information technology for CMHCs lags behind other public sector health providers.



# PHRs, Quality and Outcomes

- PHRs might be able to improve care via improved patient activation and/or improved provider coordination
- However, almost no research exists on using PHRs to improve care in either the medical or mental health literature



# Randomized Trial

- Randomized trial of PHR vs. Usual Care for patients with one or more chronic medical condition (n=170)
- Main Outcomes: Patient activation, quality of medical care.
  - Other outcomes: Health service use including ER use; recovery; medication adherence; HRQOL



# Adapting the Shared Care Plan

- Collaborated with Shared Care developers, MH consumer leaders
- Focus groups with consumers, MH and medical providers
  - Enormous excitement from consumers
  - Providers: some initial concerns about TMI, trustworthiness of information
- Modifications based on focus groups





Username:

Password:

Learn more about how the My Health Record can help you take charge of your health.

[Explore A Sample Plan](#)

Get your own **FREE** My Health Record.

For news & updates enter your email address:



# Implementing the PHR

- RN Clinical specialist helps patients enter data, set and achieve goals.
- Patient activation is used as a tool to drive care.
- Computer training classes



# Privacy and Sharing

- Explain to consumers how they might manage access to their PHR data most effectively, especially how they might set varied security settings



# Lessons Learned

- Consumers: computer training has proved critical in engaging consumers in the project. Nursing student provides each client with training.
- Providers: Primary care providers have found the records enormously helpful.



# Looking Ahead

- PHRs may be important tool not only for improving care but for consumer empowerment
- In the future, it will be possible to directly integrate community-based PHRs with lab data, pharmacy data and multiple EHRs
- Works best when incorporated into the work flow



# Questions & Answers

## Our Panel:

**Paul C. Tang, M.D., M.S.**, is an Internist and Vice President, Chief Innovation and Technology Officer at the Palo Alto Medical Foundation (PAMF), is Consulting Associate Professor of Medicine at Stanford University and directs the David Druker Center for Health Systems Innovation.

**Elizabeth A. Chrischilles, Ph.d**, is a professor in the Department of Epidemiology, holds the Marvin A. and Rose Lee Pomerantz Chair in Public Health in the University of Iowa College of Public Health.

**Silke von Esenwein, Ph.d**, is an assistant research professor at the Rollins School of Public Health at Emory University in addition to working closely with the Carter Center Mental Health Program and the Jane Fonda Center

Coming Soon!

Our next event

A webinar examining health information technology and improved decision making.

Stay tuned for exact date, time and registration information

# Thank You for Attending

This event was brought to you by the  
AHRQ National Resource Center for Health IT

*The AHRQ National Resource Center for Health IT promotes best practices in the adoption and implementation of health IT through a robust online knowledge library, Web conferences, toolkits, as well as AHRQ-funded research outcomes.*

A recording of this Web conference will be available on the AHRQ National Resource Center Web site within two weeks.

<http://healthit.ahrq.gov>

## Trial Recruitment (2)

48.9% of eligible persons were enrolled in trial

Eligible for Trial (n=2376)

Age Group	Number	Percentage
65-69	370	16%
70-74	944	40%
75-79	645	27%
80+	417	17%

Enrolled in trial (n=1163)

Age Group	Number	Percentage
65-69	168	14%
70-74	464	40%
75-79	324	28%
80+	207	18%

# Weekly and Cumulative new logins

58.4% of all invitees logged in at least once

Weeks since Go-Live	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
New logins	145	85	37	92	32	20	29	18	8	3	4	9	14	9	2	3	0
Cumulative logins	145	230	267	359	391	411	440	458	466	469	473	482	496	505	507	510	510

## Notes:

- Reminder letter for Cumulative logins mailed between weeks 3 and 4
- Notice sent describing roll-out of version 2.0 between weeks 12 and 13